

Serial No. 10/630,499  
60,130-1845  
03MRA0345

**IN THE CLAIMS:**

Please amend the claims as follows. This listing of claims will replace all prior listings.

1. (Currently Amended) An axle assembly comprising:
  - a first axle shaft defined substantially along a first axis of rotation;
  - a second axle shaft defined substantially along said first axis of rotation;
  - at least one electric motor defined substantially along a second axis of rotation transverse to said first axis of rotation, said at least one electric motor for driving both said first and said second axle shafts;
  - a first stage gear reduction driven by said at least one electric motor, said first stage gear reduction including a drive gear driven about said second axis of rotation by said at least one electric motor and a driven gear driven by said drive gear;
  - a second stage gear reduction driven by said first stage gear reduction, said second stage gear reduction including a pinion gear driven by said driven gear and a ring gear driven about said first axis of rotation by said pinion gear, said first axle shaft extending through said ring gear; and
  - a differential driven by said second stage gear reduction, said first axle shaft and said second axle shaft driven by said differential; and
  - ~~a third stage gear reduction driven by said ring gear and coupled to said differential.~~
2. (Currently Amended) ~~The axle assembly as recited in claim 1, An axle assembly comprising:~~
  - ~~a first axle shaft defined substantially along a first axis of rotation;~~
  - ~~a second axle shaft defined substantially along said first axis of rotation;~~
  - ~~at least one electric motor defined substantially along a second axis of rotation transverse to said first axis of rotation, said at least one electric motor for driving both said first and said second axle shafts, wherein said at least one electric motor comprises a first~~

Serial No. 10/630,499  
60,130-1845  
03MRA0345

electric motor defined substantially along said second axis of rotation and a second electric motor defined substantially along a third axis of rotation transverse to said first axis of rotation;

a first stage gear reduction driven by said at least one electric motor, said first stage gear reduction including a drive gear driven about said second axis of rotation by said at least one electric motor and a driven gear driven by said drive gear, and wherein said first and said second electric motors simultaneously drive said driven gear;

a second stage gear reduction driven by said first stage gear reduction, said second stage gear reduction including a pinion gear driven by said driven gear and a ring gear driven about said first axis of rotation by said pinion gear, said first axle shaft extending through said ring gear; and

a differential driven by said second stage gear reduction, said first axle shaft and said second axle shaft driven by said differential.

3. (Cancelled)

4. (Previously Presented) The axle assembly as recited in claim 1, wherein said driven gear and said pinion gear are coaxial.

5-7. (Cancelled)

8. (Previously Presented) The axle assembly as recited in claim 1, wherein said second axis of rotation is perpendicular to said first axis of rotation.

9-10. (Cancelled)

Serial No. 10/630,499  
60,130-1845  
03MRA0345

11. (Currently Amended) The axle assembly as recited in claim 91, wherein said third stage gear reduction comprises a two-speed module including an input directly coupled to said ring gear.
12. (Previously Presented) The axle assembly as recited in claim 11, wherein said differential is substantially contained within said two-speed module.
13. (Previously Presented) An axle assembly comprising:  
a first axle shaft defined substantially along a first axis of rotation;  
a second axle shaft defined substantially along said first axis of rotation;  
a first electric motor defined substantially along a second axis of rotation transverse to said first axis of rotation for driving both said first and said second axle shafts;  
a second electric motor defined substantially along a third axis of rotation transverse to said first axis of rotation for driving both said first and said second axle shafts;  
a first stage gear reduction driven by said first and second electric motors, said first stage gear reduction including a first drive gear driven about said second axis of rotation by said first electric motor and a second drive gear driven about said third axis of rotation by said second electric motor, said first drive gear and said second drive gear driving a driven gear;  
a second stage gear reduction driven by said first stage gear reduction, said second stage gear reduction including a pinion gear driven by said driven gear and a ring gear driven by said pinion gear, said first axle shaft extending through said ring gear; and  
a differential driven by said second stage gear reduction, said first axle shaft and said second axle shaft driven by said differential.

14. (Previously Presented) The axle assembly as recited in claim 13, wherein said first drive gear comprises a first single gear driven by said first electric motor, said second drive

Serial No. 10/630,499  
60,130-1845  
03MRA0345

gear comprises a second single gear driven by said second electric motor, and said driven gear comprises a third single gear driven by both said first and second single gears.

15. (Cancelled)

16. (Previously Presented) The axle assembly as recited in claim 13, wherein said ring gear is coaxial with said first axis of rotation.

17. (Previously Presented) The axle assembly as recited in claim 16, wherein said ring gear drives said differential.

18. (Previously Presented) The axle assembly as recited in claim 4, wherein said driven gear comprises a single gear that drives said pinion gear about an axis of rotation generally parallel to said second axis of rotation.

19. (Previously Presented) The axle assembly as recited in claim 2, wherein said drive gear comprises a first drive gear that is driven by said first electric motor about said second axis of rotation and including a second drive gear driven by said second electric motor about said third axis of rotation wherein said first and said second drive gears are in direct meshing engagement with said driven gear.

20. (Previously Presented) The axle assembly as recited in claim 2, wherein said driven gear comprises a single driven gear coupled to said pinion gear such that said single driven gear and said pinion gear rotate about a fourth axis of rotation generally parallel to said second and third axes of rotation.

Serial No. 10/630,499  
60,130-1845  
03MRA0345

21. (Previously Presented) The axle assembly as recited in claim 1, wherein said first axle shaft, said second axle shaft and said ring gear are coaxial and with said driven gear directly driving said pinion gear, said pinion gear directly driving said ring gear, and said ring gear directly driving said differential.
22. (Previously Presented) The axle assembly as recited in claim 1, wherein said first axle shaft and said second axle shaft are each contained within a respective axle housing, said first and second axle shafts respectively operable to drive a wheel assembly
23. (Previously Presented) The axle assembly as recited in claim 13, wherein said driven gear and said pinion gear are mounted along a common axis of rotation generally parallel to said second axis of rotation and said third axis of rotation.
24. (Previously Presented) The axle assembly as recited in claim 13, wherein said driven gear and said pinion gear are mounted along a common axis of rotation transverse to said first axis of rotation.
25. (Previously Presented) The axle assembly as recited in claim 13, wherein said pinion gear is directly mounted to said driven gear for rotation therewith.
26. (Previously Presented) The axle assembly as recited in claim 13, wherein said second axis of rotation and said third axis of rotation both intersect said first axis of rotation.
27. (Previously Presented) A drive system for a multi-axle vehicle comprising:  
a frame which includes a pair of main longitudinal members;  
a first axle shaft defined substantially along a first axis of rotation transverse to said pair of main longitudinal members;

Serial No. 10/630,499  
60,130-1845  
03MRA0345

an electric motor defined substantially along a second axis of rotation extending along a direction having at least a component extending parallel to said pair of main longitudinal members and transverse to said first axis of rotation, said first axis of rotation and said second axis of rotation contained within a common plane;

a first stage gear reduction including a drive gear driven by said electric motor and a driven gear which supports a pinion gear of a second stage gear reduction, said driven gear and said pinion gear mounted along a common axis of rotation generally parallel to said second axis of rotation; and

said second stage gear reduction being driven by said first stage gear reduction and including a ring gear driven about said first axis of rotation by said pinion gear, said first axle shaft extending through said ring gear and driven by said second stage gear reduction.

28. (Previously Presented) The drive system as recited in claim 27, further comprising a differential driven by said second stage gear reduction, said first axle shaft driven by said differential.

29. (Previously Presented) The drive system as recited in claim 28, wherein said ring gear drives said differential.